

## *Hypselistes paludicola* is a junior synonym of *Trichopternoides thorelli* (Araneae: Linyphiidae)

Petr Dolejš & Vlastimil Růžička

doi: 10.5431/aramit5003

**Abstract.** *Hypselistes paludicola* Tullgren, 1955 was mentioned only a few times in the literature since its description. After examination of the holotype, it can be concluded that *Hypselistes paludicola* Tullgren, 1955 is a junior synonym of *Trichopternoides thorelli* (Westring, 1861) **syn. nov.**

**Keywords:** František Miller, holotype, new synonymy, spiders, taxonomy

**Zusammenfassung.** *Hypselistes paludicola* ist ein jüngerer Synonym von *Trichopternoides thorelli* (Araneae: Linyphiidae). *Hypselistes paludicola* Tullgren, 1955 wurde seit seiner Beschreibung selten in der Literatur zitiert. Die Untersuchung des Holotypus bestätigt, dass *Hypselistes paludicola* Tullgren, 1955 identisch ist mit *Trichopternoides thorelli* (Westring, 1861) ist, **syn. nov.**

The spider *Hypselistes paludicola* was described by Tullgren (1955) from southern Sweden. The description was based on a single female. Later, this species was mentioned twice by F. Miller from the territory of the Czech Republic under the name *Hypselistes paludosus* (World Spider Catalog 2015). Miller (1966) had three females available: one female from a peat bog in south Bohemia (Miletín near Třeboň) and two females from a field in south Moravia (Branišovice near Pohořelice). He presented a detailed description, but expressed serious doubts about the identity of his specimens: “Es ist nicht ganz sicher, dass diese Weibchen mit dem schwedischen weiblichen Typ identisch sind. Tullgrens kurze Diagnose passt zwar ziemlich gut auf unsere Exemplare, doch gibt es gewisse wesentlicher Unterschiede, die die Zuordnung zu *H. paludicola* einigermaßen unsicher machen” [It is not certain whether these females are identical with the Swedish female type. Tullgren’s short diagnosis fits quite well with our specimens, however, some significant differences make the identification as *H. paludicola* questionable.]. The description is shortly repeated in the key to the fauna of former Czechoslovakia (Miller 1971: p. 292, Table LXI, Fig. 29). Buchar & Růžička (2002: p. 94) included *H. paludicola* as a synonym of *Styloctetor stativus* (Simon, 1881). Finally, Wunderlich (2008: p.

687) noted under the description of *Trichopternoides* n. gen. and its type species *T. thorelli* (Westring, 1861): “According to Lehtinen (person. commun. ca. 30 years ago) *Hypselistes paludicola* Tullgren, 1955 is a junior synonym.”

### Taxonomy

#### *Trichopternoides thorelli* (Westring, 1861)

*Erigone thorelli* – Westring (1861): p. 228 (descr. M).

*Hypselistes paludicola* – Tullgren (1955): p. 348, Table XVII, Fig. 51 (descr. F); **syn. nov.**

*Hypselistes paludosus* – Miller (1966): p. 161, Table V, Figs 7-12 (F) (misspelling).

*Hypselistes paludosus* – Miller (1971): p. 292, Table LXI, Fig. 29 (F).

*Trichopternoides thorelli* – Wunderlich (2008): p. 687, Figs 5-9 (M F).

**Material examined.** Type material: *Hypselistes paludicola*, 1 ♀ (Fig. 1A-B), Småland: Tranås, SWEDEN (58.04°N, 14.98°E, 165 m a.s.l.), 23 June 1943, leg. A. Tullgren. Additional label: ?*Trichopterna thorelli* (Westr.), det. T. Kronstedt 1995. Deposited in the Swedish Museum of Natural History, N<sup>o</sup> NHRS-KASI 000000010. It was not allowed to dissect the vulva of the type.

**Other material examined.** *Hypselistes paludicola*, 1 ♀, Miletín, CZECHIA (49.02°N, 14.67°E, 450 m a.s.l.), 14 July 1962, leg. J. Martínek. Deposited in the National Museum, Prague, N<sup>o</sup> P6A 852/1. Vulva mounted separately. The specimen was mentioned in Miller (1966).

*Hypselistes paludicola*, 1 ♀ (Fig. 2A), Třeboň, CZECHIA (49.01°N, 14.76°E, 435 m a.s.l.), July.

Petr DOLEJŠ, Department of Zoology, National Museum – Natural History Museum, Cirkusová 1740, CZ 192 00 Praha 9 – Horní Počernice, Czech Republic; E-Mail: petr\_dolejs@nm.cz  
Vlastimil RŮŽIČKA, Institute of Entomology, Biology Centre CAS, Branišovská 31, CZ 370 05 České Budějovice, Czech Republic; E-Mail: vruz@entu.cas.cz



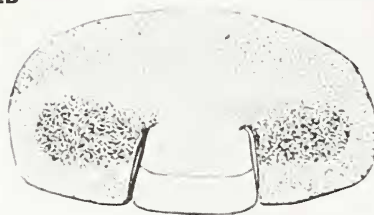
1B



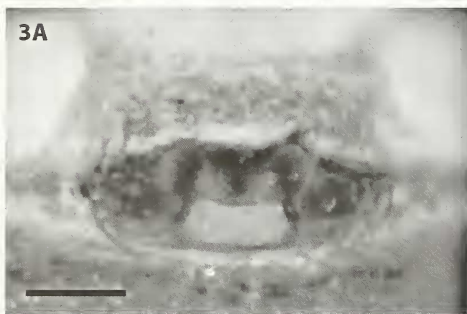
**Fig. 1:** *Hypselistes paludicola*, female holotype; **A** – Photo of epigyne, **B** – Drawing of epigyne from the original description (Tullgren 1955)



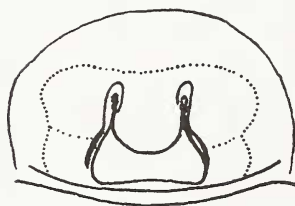
2B



**Fig. 2:** *Hypselistes paludicola*, female; **A** – Photo of epigyne (Třeboň), **B** – Drawing of epigyne from Miller (1966)



3B



**Fig. 3:** *Trichopternoides thorelli*, female; **A** – Photo of epigyne (Čalovo), **B** – Drawing of epigyne from Miller (1971)

Scale bar 0.1 mm

Deposited in the National Museum, Prague, N<sup>o</sup> P6A 852/2.

*Trichopternoides thorelli*, 1 ♂, 14 ♀ (Fig. 3A), Velký Meder – Čalovo, SLOVAKIA (47.86°N, 17.77°E, 110 m a.s.l.), 10 May 1960, leg. F. Miller, Deposited in the National Museum, Prague, N<sup>o</sup> P6A 889. This species was described based on a male - no female type exists.

*Styloctetor stativus*, 1 ♀, Tišice – Kozly, CZECHIA (50.26°N, 14.56°E, 165 m a.s.l.), 10 April 1963, leg. J. Buchar. Deposited in the National Museum, Prague, N<sup>o</sup> P6d-41/2012.

### Results and discussion

The two possible synonymies that had been previously proposed concerning *Hypselistes paludicola* were considered. The overall shape of the prosoma, prosoma length and width, the position of the metatarsal trichobothria, the relative length of the tarsus, the

position of the eyes (Tab. 1) and the form of the epigyne and vulva were compared.

The female holotype of *Hypselistes paludicola* has trichobothria on metatarsi I–III near the distal ends of the segments, the trichobothrium on metatarsus IV is present and the tarsi are relatively short. On the contrary, females of *Styloctetor stativus* have trichobothria in the middle of the metatarsi, a trichobothrium on metatarsus IV is lacking and the tarsi are not relatively short. Thus, the opinion of Buchar & Růžička (2002: p. 94) that *Hypselistes paludicola* is a synonym of *Styloctetor stativus* is clearly erroneous.

Tullgren (1955: p. 348) was aware of the unusual position of the trichobothria at the distal ends of the metatarsi and considered establishing a new genus: “Die Aufstellung einer neuen Gattung wäre vielleicht richtiger” [Establishing a new genus would probably be a better solution]. Miller (1966: p. 163)

**Tab. 1:** Measurements of females. ALE = anterior lateral eyes, AME = anterior median eyes, Btr Mt = relative position of trichobothrium on metatarsus, Cth = prosoma,  $D_{pme}$  = diameter of posterior median eyes, PER = posterior eye row, PME = posterior median eyes, Ta/Mt = ratio in lengths of tarsus and metatarsus

Specimen	Cth length (mm)	Cth width (mm)	Btr Mt I–III	Btr Mt IV	Ta/Mt I–III	PER	AME vs. ALE	PME inter-distance
<i>H. paludicola</i> , holotype	0.95	0.80	0.92–0.93	0.95	0.55–0.58	procurved	AME < ALE	$\leq D_{pme}$
<i>H. paludicola</i> , Miletín	1.03	0.79	0.90–0.92	0.93	0.53–0.55	slightly procurved	AME < ALE	$\leq D_{pme}$
<i>H. paludicola</i> , Třeboň	1.09	0.86	0.91–0.92	0.95	0.51–0.54	slightly procurved	AME < ALE	< $D_{pme}$
<i>T. thorelli</i> , Čalovo	1.11	0.89	0.93	0.94	0.56–0.57	procurved	AME $\leq$ ALE	< $D_{pme}$
<i>S. stativus</i> , Kozly	1.00	0.85	0.55–0.58	–	0.76–0.78	straight	AME $\sim$ ALE	$\sim D_{pme}$

noted the relatively short tarsi: “Auffallend sind die relativ kurzen Tarsen” [The relatively short tarsi are conspicuous]. Based on these differences, Wunderlich (2008: p. 686) established a monotypic genus *Trichopternoides* for *Trichopterna thorelli*.

Although the type specimen of *H. paludicola* was just after the final moult and not fully coloured, it is similar to *T. thorelli* in all parameters (Tab. 1). The epigynes are nearly identical (Figs 1–3), having the anterior part darker than the posterior part (cf. Miller 1966: Plate V, Figs 8–9), contrary to *S. stativus* whose epigyne is unicoloured. The vulva of *H. paludicola* as depicted by Miller (1966: Plate V, Fig. 10) is in accordance with that of *T. thorelli* as drawn by Wiehle (1960: Fig. 75). Eye arrangement may vary in details (see Tab. 1), thus it can be used only with caution for separating these species.

Based on our investigations, the old information from P. Lehtinen noted by J. Wunderlich (2008) and the preliminary determination by T. Kronstedt can be confirmed: *Hypselistes paludicola* Tullgren, 1955 = *Trichopternoides thorelli* (Westring, 1861) **syn. nov.**

The species thus has a West Palearctic distribution (from extramediterranean Europe to West Siberia) (e.g. Buchar & Růžička 2002, Mikhailov 2013), and inhabits detritus in wet places, such as marshes, reed swamps, wet heathlands, alder and willow growth (e.g. Buchar & Růžička 2002, Harvey et al. 2002).

#### Acknowledgements

We are grateful to Karin Sindemark Kronstedt (Swedish Museum of Natural History) for the loan of type material and Jörg Wunderlich for supplying us with an important

reference. We would like to thank Torbjörn Kronstedt and Andrei V. Tanasevitch for their comments to an earlier version of the manuscript. This work was financially supported by Ministry of Culture of the Czech Republic (DKRVO 2015/15, National Museum, 00023272) and institutional support RVO:60077344.

#### References

- Buchar J & Růžička V 2002 Catalogue of spiders of the Czech Republic. Peres, Praha. 351 pp.
- Harvey PR, Nellist DR & Telfer MG 2002 Provisional atlas of British spiders (Arachnida, Araneae), Volume 1. Biological Records Centre, Huntingdon. 214 pp.
- Mikhailov KG 2013 The spiders (Arachnida: Aranei) of Russia and adjacent countries: a non-annotated checklist. – *Arthropoda Selecta* Suppl. 3, KMK Scientific Press Ltd., Moscow. 263 pp.
- Miller F 1966 Einige neue oder unvollkommen bekannte Zwergspinnen (Micryphantidae) aus der Tschechoslowakei (Araneida). – *Acta Entomologica Bohemoslovaca* 63: 149–164
- Miller F 1971 Řád Pavouci – Araneida [Order Spiders – Araneida]. In: Daniel M & Černý V (eds.) *Klíč zvířeny ČSSR IV* [Key to the fauna of Czechoslovakia IV]. ČSAV, Praha. pp. 51–306 (in Czech)
- Tullgren A 1955 Zur Kenntnis schwedischer Erigoniden. – *Arkiv för Zoologi* (N.S.) 7: 295–389
- Westring N 1861 Araneae svecicae. – *Göteborgs Kungliga Vetenskaps och Vitterhets Samhälles Handlingar* 7: 1–615
- Wiehle H 1960 Spinnentiere oder Arachnoidea (Araneae) XI. Micryphantidae – Zwergspinnen. – *Die Tierwelt Deutschlands* 47: 1–620
- World Spider Catalog 2015 World spider catalog, version 16. Natural History Museum, Bern. – Internet: <http://wsc.nmbe.ch> (February 26, 2015)
- Wunderlich J 2008 Descriptions of new taxa of European dwarf spiders (Araneae: Linyphiidae: Erigoninae). – *Beiträge zur Araneologie* 5: 685–697